August 18, 2017

Harbaugh Feedlot
26825 Ironwood Road
Elkader, IA 52043

Attn: Justin Harbaugh

RE: NOTICE OF VIOLATION Facility # 69516
455B.186 Prohibited actions
567 IAC 61.3(2) General Water Quality Criteria
567 IAC 121.4(1) Land Application of Solid Wastes
567 IAC 65.2 Minimum Manure Control Requirements and Reporting of Releases

Dear Mr. Harbaugh:

On August 3, 2017, a complaint investigation of your animal feeding operation was conducted by this office. During this investigation violations of the above noted code of Iowa (copies enclosed) were observed.

You are directed to cease all prohibited discharges and provide a plan of action to this office within 30 days. The plan should outline the actions you propose to provide a permanent remedy to meet compliance requirements.

This notice does not preclude the DNR from pursuing additional enforcement action regarding these or any other violations.

If you have any questions, feel free to contact me.

Sincerely,

ENVIRONMENTAL SERVICES DIVISION

Rick Martens
Environmental Specialist

c: -Stephen Pollard, U.S. EPA Region 7,WWPD/WENF, 11201 Renner Blvd., Lenexa, KS 66219
-Ken Hessenius, FO#3, AFO Enforcement Coordinator, Spencer, IA

enc: -AFO Facility Inspection Report
-Animal Feeding Operation (AFO) Regulatory Status Form
-Aerial Photos of Site

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IOWA DEPARTMENT OF NATURAL RESOURCES
AFO INSPECTION REPORT

FACILITY DESCRIPTION

FACILITY LOCATION	Facility: **Harbaugh Feedlot**			Facility ID#: **69516**
	Address:26825 Ironwood Road	City: **Elkader**	State: **IA**	Zip: **52043**
	PLSS: **Section 27, Read Township (T93N, R04W), Clayton County**			
OWNER	Name: **Arlene Harbaugh**			
	Address: **Same as above**	City:	State:	Zip:
ANIMAL HOUSING TYPE	☐Confinement ☐Open Lot ☒Combined (Confinement & Open Lot)			
ANIMAL INFORMATION	Animal Type(s)	Capacity	Current Head	Number of Bldgs./Pens
	Beef Finish – Confined **Beef Finish - Open**	**240** **450**	**230** **372**	**1** **3**
	Date of Construction: 1960		Dates of Expansion: **2013**	

INSPECTION INFORMATION

INSPECTION DATE	This Inspection **08/03/2017**	Last Inspection:
PERSONS INTERVIEWED	Name: **Arlene Harbaugh**	Title: **Owner**
	Name: **Justin Harbaugh**	Title: Operator
NEAREST WATERCOURSE	Stream Name: **Unnamed Tributary to West Branch South Cedar Creek**	
	Description of Flow Path: **East/Southeast**	

COMPLIANCE SUMMARY

OBSERVATIONS

Nutrient Management:
☐CNMP ☐NMP ☐MMP ☐Other ☒No formal plan

Manure Stockpiling:	Mortality Management:	Runoff from Feed Storage:
☒In controlled area ☐In compliance with rules ☐Not applicable – direct haul ☐Stockpiling in an uncontrolled area	☐Rendering ☒Composting ☐Incineration ☐On-site burial ☐Landfill	☒No outdoor feed storage area ☐Discharge from feedstock storage area is controlled ☐Feed storage is located in an uncontrolled area
Clean Water Diverted: ☒Yes ☐No	Discharge to a Water of the U.S. via Manmade Conveyance: ☐Yes ☒No	Direct Animal Contact with Waters of the U.S.: ☐Yes ☒No

Adjacent Facilities (by same owner/operator): ☐Confinement ☐Open Lot ☒None

Evidence of Discharges: ☒Yes ☐No
Manure solids and ammonia nitrogen present in stream.

NPDES PERMIT STATUS	The facility, as observed during the inspection, was a medium AFO and did not need an NPDES permit. NPDES permit is required: ☐Yes ☒No
COMPLIANCE STATUS	This facility appeared to be in compliance with Iowa's environmental regulations at the time of the inspection. Actual conditions may vary over time with the operation and maintenance of the facility. Facility is in compliance: ☐Yes ☒No

AUTHENTICATION	Inspector:	Date:	Reviewer:	Date:

IOWA DEPARTMENT OF NATURAL RESOURCES
AFO INSPECTION REPORT

FACILITY EVALUATION

On July 26, 2017, Field Office 1 received anonymous complaint #24528. The complainant stated that a "manure pit" at the Justin Harbaugh feedlot was overflowing. On August 3, 2017, Don Chase, Environmental Specialist, Field Office 1 and I visited the feedlot, located at 26825 Ironwood Road, Elkader.

We met with Arlene Harbaugh, owner of Harbaugh Feedlot and discussed the complaint. Ms. Harbaugh stated that her son, Justin Harbaugh, was the feedlot operator and not available. She granted permission to inspect the road ditch and stream adjacent to the feedlot.

Mr. Chase and I entered the road ditch immediately next to the Harbaugh lane entrance (see photo page 1 and 2). I observed brown turbid water flowing from the direction of the feedlot and passing under Ironwood Road through a culvert. The stream had a small flow, there was foam on the stream margins and the water had a manure/waste odor. Field testing indicated ammonia nitrogen was present in the water. The water was 68°F and the pH was 4.2. Water sample 2-170 was taken approximately 15 feet upstream of the culvert, labeled "Harbaugh Feedlot discharge". The sample was later sent to the State Hygienic Laboratory, University of Iowa. Laboratory analysis determined 69 milligrams per liter (mg/L) ammonia nitrogen present in the sample.

As I walked through vegetation another very small flow of clear water was observed entering the stream from a field north of the lane. This water was clear, had no odor or foam and field testing indicated no ammonia present. The water was 59°F and the pH was 7.2. Water sample 2-180 was taken from the flow and, labeled "North Field Discharge". The sample was later analyzed and contained 0.05 mg/L ammonia nitrogen.

Mr. Chase and I then proceeded east across Ironwood Road and observed the stream (later determined to be a tributary of the West Branch South Cedar Creek). We observed a pool immediately below the road culvert covered with white foam. Observing the stream at a downstream riffle I noted the water was cloudy white, less brown, foamy and had the same manure/waste odor. The water was 68°F and the pH was 6.0. Water sample 2-143 was taken from the flow and, labeled "West Fork South Cedar Creek". The sample was later analyzed and contained 60 mg/L ammonia nitrogen.

As we returned to the Harbaugh Feedlot, Justin Harbaugh arrived on site. We discussed the complaint and Mr. Harbaugh explained that the facility had recently experienced a manure discharge. He noted that on July 20 or 21st, a rainfall event of over six inches fell in less than four hours. The water from the southwest crop field had entered his confinement cattle barn flushing through it and then overflowing a manure storage structure. Mr. Harbaugh provided video of the event.

Mr. Harbaugh and I followed the manure flow south, to the cattle barns. We observed manure solids on the banks of the stream and a trail of manure from the stream to a cement, unroofed, manure storage structure. Mr. Harbaugh explained that the facility was operated as a dairy until about 2013 when the buildings were modified to a custom cattle feeding operation. Mr. Harbaugh estimated that approximately 600 head of cattle were on site. He described the operation as a confinement with five roofed barns or sheds. None of the barns have an underfloor pit and manure is scraped to a solids holding storage area. The cement structure was estimated to be 120 by 25 feet in length and 8 feet deep with a holding capacity of 250,000 gallons. Mr. Harbaugh stated that he rented a 3,700 gallon vacuum truck and removed 195,000 gallons of manure following the rains. Confinement manure was taken to a 1.4 million gallon formed tank near the Harbaugh home. Mr. Harbaugh explained the formed tank was designed by the Natural Resource Conservation Service and constructed in 2010 for the dairy. He added that waste milk and whey are received from the Swiss Valley Cheese Plant, Luana, Iowa, and held in the tank.

Mr. Harbaugh and I walked south of the manure holding structure and observed a cattle barn to our left. Mr. Harbaugh explained that this was a former feed bunker for dairy cattle, now housing feeder cattle. We observed a trail of manure solids from the barn to the stream drainage. Mr. Harbaugh explained that he has utilized approximately six acres of grassed space to land apply liquids from his system. Vegetation in the six acres was mostly brown or dead and the area had a strong waste odor. I observed a small flow of turbid water discharging through the area. Manure solids were in the stream. Both sides of the vegetated area strongly slope to the drainage which then flows past the Harbaugh Feedlot barns and associated manure structure.

IOWA DEPARTMENT OF NATURAL RESOURCES
AFO INSPECTION REPORT

At the upper end of this grassed application area, I located clear water, slowly flowing through grass immediately down gradient of a corn field. Field testing indicated no ammonia present. The water was 79°F and the pH was 6.8. Water sample 2-190 was taken and, labeled "Above Harbaugh Lot". The sample was later analyzed and contained 0.13 mg/L ammonia nitrogen.

As we walked the vegetated area back to the feedlot we observed a spray irrigation system. It consisted of an elevated nozzle with a hose running west to the 1.4 million gallon formed manure tank. Mr. Harbaugh stated that liquids from the tank are land applied to the vegetated area. Much of the vegetation in the area was brown and laying flat, facing down the slope to the stream drainage. It appeared that there was a recent runoff event from the area.

Mr. Harbaugh was directed to cease all discharge to the stream and recover manure solids and liquids outside of containment. He was also provided contact information for Iowa State University agricultural engineering staff for additional assistance.

Mr. Chase and I then proceeded to the next downstream bridge on South Cedar Creek. The water appeared normal and no ammonia nitrogen was detected.

On August 9th, I returned to the site and met with Mr. Harbaugh. We were later met by Brian Jergenson, Environmental Specialist Senior, Field Office 1. We jointly inspected the animal feeding operation and Mr. Harbaugh provided a description (see Map).

The "upper shed" is barn #1 and currently houses 34 feeder cattle. It is partially roofed and an open feedlot. No evidence of manure discharge was observed. Barn #2 is the former milking barn and had 150 head of cattle. There are two roofed buildings that share an unroofed center pen. This open feedlot is scraped into the manure storage structure between Barn #2 and Barn #3. Barn #3, a converted free-stall barn is totally roofed, held 188 head of feeder cattle and is a confinement barn. Barn #4 is a converted feed storage bunker and 188 head of cattle occupied this partially roofed structure, considered an open lot.

Mr. Harbaugh explained that all manure is in a solid form. Pens are bedded every two weeks and scraped approximately every three weeks. Manure is contained in solid form in the unroofed formed storage structure between buildings #2 and #3. All animal feeds are under roof. Gutters were added to Barns #2 & #3 and rain water is diverted around the barns, pens and manure holding structure. The facility does not utilize a manure management plan and has 180 acres of crop fields for manure application.

We observed the 1.4 million gallon formed storage tank. Mr. Harbaugh stated that it was last emptied in the fall of 2013 and currently has a freeboard of 22 inches. He described the contents as water, whey, waste milk and manure. He also stated that 5,000 gallons of antibiotic contaminated milk was rejected by Swill Valley and placed in the tank about a week prior. Mr. Harbaugh noted that liquids from the tank are disposed as needed by spray irrigation to the six acre vegetated application area. .

On August 10th, Greg Brenneman, ISU Ag Engineering Specialist conducted an assistance visit at the Harbaugh Feedlot.

CONCLUSIONS:

The field investigation of complaint #24528 found the discharge of confinement manure to waters of the State from the Harbaugh Feedlot operation is a violation of:

Iowa Administrative Code (IAC) 567- 65.2 *Minimum manure control requirements and reporting of releases* **(**copy enclosed**).**

"The minimum level of manure control for a confinement feeding operation shall be the retention of all manure produced in the confinement enclosures between periods of manure application and as specified in this rule. In no case shall manure from a confinement feeding operation be discharged directly into a water of the state or into a tile line that discharges to waters of the state."

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AFO INSPECTION REPORT

Water samples (test results enclosed) taken during the investigation determined violations noted below:

IAC 567--61.3(2) *General water quality criteria* (copy enclosed).

Code of Iowa 455B.186 *Prohibited actions* (copy enclosed).

The land application of milk and or milk waste products without a permit is a violation of IAC 567-121.7 Permit Requirements (copy enclosed).

Additional legal action is under evaluation.

REQUIREMENTS:

Harbaugh Dairy is required to submit a corrective plan of action to this office within 30 days of receipt of this report. This plan of action must show a permanent remedy of the manure discharge.

A follow up DNR Work Plan inspection will take place after the permanent remedy has been achieved.

Animal Feeding Operation (AFO) Regulatory Status

Facility Name: **Harbaugh Feedlot** Facility ID: **69516** County: **Clayton**

- ☐ Large CAFO – Discharging – NPDES Permit Required
- ☐ Large CAFO – No discharge – No NPDES Permit Required
- ☐ Large CAFO – Has NPDES Permit
- ☐ Medium CAFO – NPDES Permit Required
- ☒ Medium AFO – No NPDES Required
- ☐ Medium AFO – Has NPDES Permit
- ☐ Designated CAFO – NPDES Permit Required
- ☐ Small AFO – No NPDES Permit Required

This determination was made based on conditions and observations made at the time of the inspection on 08/03/2017. Please note that the regulatory status of the facility can change if conditions at the facility change or are different from those documented during the inspection.

Inspector: _____ Date: _____

Regulatory Definitions of Large CAFOs, Medium CAFOs, and Small CAFOs

These regulatory definitions are from the Code of Federal Regulations (CFR), implementing the federal Clean Water Act.

A **Large CAFO** confines at least the number of animals described in the table below.
A **Medium CAFO** falls within the size range in the table below and either:

- "(A) Pollutants are discharged into waters of the United States through a man-made ditch, flushing system, or other similar man-made device; or
- (B) Pollutants are discharged directly into waters of the United States which originate outside of and pass over, across, or through the facility or otherwise come into direct contact with the animals confined in the operation." 40 CFR 122.23(b)(6)(ii)

If an operation is found to be a significant contributor of pollutants to waters of the United States, the permitting authority may designate a medium-sized facility as a CAFO as provided in 40 CFR 122.23(c).

A **Small CAFO** confines the number of animals listed in the table **and** has been designated as a CAFO by the permitting authority after determining that it is a significant contributor of pollutants to waters of the United States as provided in 40 CFR 122.23(c).

Animal Sector	Size Thresholds (number of animals)		
	Large CAFOs	Medium CAFOs	Small CAFOs
cattle or cow/calf pairs	1,000 or more	300 – 999	less than 300
mature dairy cattle	700 or more	200 – 699	less than 200
veal calves	1,000 or more	300 – 999	less than 300
swine (weighing over 55 pounds)	2,500 or more	750 -2,499	less than 750
swine (weighing less than 55 pounds)	10,000 or more	3,000 – 9,999	less than 3,000
horses	500 or more	150 – 499	less than 150
sheep or lambs	10,000 or more	3,000 – 9,999	less than 3,000
turkeys	55,000 or more	16,500 – 54,999	less than 16,500
chickens other than laying hens (other than a liquid manure handling system)	125,000 or more	37,500 – 124,999	less than 37,500
laying hens (other than a liquid manure handling system)	82,000 or more	25,000 – 81,999	less than 25,000

IOWA DEPARTMENT OF NATURAL RESOURCES
ENFORCEMENT CHECKLIST FOR AFO/CAFO INSPECTIONS

INSPECTION DESCRIPTION

Date of Inspection **August 03, 2017**

Facility Name **Harbaugh Feedlot** Facility ID# **69516**

Facility Address **26825 Ironwood Road, Elkader, IA 52043**

Inspector's Name **Rick Martens**

INSPECTION FINDINGS

Narrative Description of Investigation (evidence of current violations; indicators of past violations; future concerns):

See inspection report.

- ☒ Photographs and/or Video
- ☒ Water Samples (upstream and downstream)
- ☒ Personal Interviews – Justin Harbaugh – Owners/Operators
- ☐ Other _____

ACTIONS FOLLOWING INSPECTION

- ☐ No further action taken – no violation(s) observed
- ☐ Informal Meeting Date _____
- ☐ Letter of Inquiry Date _____
- ☐ Letter of Noncompliance Date _____
  (Within 30 days of confirmation of Violation)
- ☒ Notice of Violation Letter Date **18 August 2017**
  (Within 30 days of confirmation of Violation)

REFERRAL/NON-REFERRAL

- ☒ Non Referral; No referral warranted. Explanation:

- ☐ Referral; based on the following criteria:

- ☐ Fish kill/acute water quality degradation
  (Manure spills and/or discharges that result in destruction of aquatic life, including fish, are a top priority)
- ☐ Serious water quality degradation
  (Release of pollutants may result in degradation of an aquatic resource without an obvious fish kill, but the effect may be impaired use and enjoyment of the water resource or chronic pollution harming aquatic life)

☒ Discharges of pollutants to state waters not authorized by an NPDES permit
(This priority would include discharges from open feedlots or confinements to waters of the state, not authorized under conditions of an NDPES permit issued by the DNR. An impact on water quality is documented)

☐ Failure to obtain required NPDES permit
(A large CAFO, medium CAFO, or designated CAFO is found to have any documented discharge without, or in violation, of an NPDES permit)

☐ Unauthorized construction
(Construction of AFO/CAFO structures (including open feedlots) without, or contrary to, a permit or other required documentation is also a DNR priority. Proper compliance with AFO siting and construction requirements is essential elements of the AFO program, which helps keep pollutants out of streams)

☐ Significant violations of NPDES permit and/or conditions in the permit
(Violations of a significant nature and/or repeated violations of operating or reporting requirements)

☐ Failure to submit MMP updates
(MMPs are the cornerstone of the animal feeding program. The MMP helps ensure that any proposed or current confinement feeding operation over 500 animal units has adequate land to use the manure nutrients it produces)

☐ Failure to obtain proper manure application certification
(The manure applicator certification program is an important component of the AFO regulations. The program ensures that manure is transported and applied properly)

☒ Other **Milk waste disposal and discharge to waters of the state.**

Date of Referral to Legal _____

Justin Harbaugh Feedlot Map
26825 Ironwood Road, Elkader, Iowa Facility #69516